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OF THE

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FOREIGN MINING AND METALLURGY.

The French iron trade is well maintained, and a fair current of orders is observed. The mildness of the weather, which has permitted building operations to be continued at Paris, has strengthened the generally firm tone of business. At the next meeting of forgemasters in the Nord it is probable that a small advance in prices, which was postponed at the last sitting, will be adopted, in consequence of the generally favourable tone of affairs. The Committee of French Forgemasters return the imports of iron mineral into France in the first ten months of last year at 1,103,698 tons, as compared with 981,438 tons in the corresponding period of 1880. The exports of iron minerals from France in the first ten months of last year were 69,966 tons, as compared with 94,877 tons in the corresponding period of 1880. The imports of iron minerals into France from Algeria in the first ten months of last were 230,940 tons, as compared with 261,500 tons in the corresponding period of 1880; from Germany, 265,974 tons, as compared with 233,808 tons; from Belgium, 100,338 tons, as compared with 83,259 tons; from Spain, 377,949 tons, as compared with 280,705 tons; from Italy, 114,809 tons, as compared with 113,380 tons; and from other countries, 14,279 tons, as compared with 8786 tons. The imports of pig into France in the first ten months of last year were 217,524 tons, as compared with 136,645 tons in the corresponding period of 1880. The imports of iron into France in the first ten months of last year were 52,592 tons, as compared with 46,659 tons in the corresponding period of the year 1880. The imports of steel into France in the first ten months of last year amounted to 15,870 tons, as compared with 7141 tons in the corresponding period of 1880. The aggregate imports of pig, iron, and steel into France in the first ten months of last year amounted to 285,986 tons, showing an increase of 95,541 tons, or more than 50 per cent. as compared with the corresponding period of 1880. The exports of pig, iron, and steel from France in the first ten months of last year were 100,469 tons, as compared with 107,640 tons in the corresponding period of 1880, showing a decrease of about 7000 tons, or 7 per cent., last year. The German iron trade has been slightly quieter; at any rate, no fresh advance has been noted in prices. German ironmasters appear to be content with maintaining the ground which they have gained during the last few months. At the same time the works are generally well off for orders, although few fresh contracts have been secured during the last few days. The German railway companies have some considerable requirements to satisfy, and these requirements are likely to increase rather than otherwise. It is expected that a number of French orders will also be placed in Germany during the year upon which we have just entered. A Konigsberg firm has obtained an order at Ebberfeld this week for twenty locomotives. It is stated from Mexico that German industrials are finding outlets of some importance in Mexico. Already German firms have forwarded 28,000 tons of steel rails to the Mexican Republic. Quotations have not varied upon the German iron markets; if anything, pig has shown a slightly upward tendency.

The intelligence available with respect to the Belgian iron trade is still of a favourable character. The markets present a good tone, and a steady demand still prevails. Industrials are assured employment—indeed, for some time to come. It may be noticed, however, that the demand for casting pig leaves something to be desired, but fining pig has been fairly supported. The basis price for ordinary iron in Belgium is 5*l.* 12s. 10d. per ton, but few contracts have been made upon slightly lower terms. It is stated orders will be given out for 2800 or 3000 trucks for the Belgian State railways in the course of February. The external demand for Belgian iron is at present favourable. Some important orders are said to have come to hand from India and the extreme East; these orders have been received with much satisfaction, as they are, of course, calculated to assure a continuance of the remunerative prices at present prevailing. It is of some interest to give the rate of capitalisation of the obligations or small debentures of Belgian industrial companies. The rate of capitalisation of the 5 per cent. obligations of the Athus Blast Furnaces Company is 4·90 per cent., as compared with 4·85 per cent. 12 months since. The corresponding rate of capitalisation of the 5 per cent. obligations (first series) of the John Cockerill Company is 4·89 per cent., as compared with 4·81 per cent. a year since. The corresponding rate of capitalisation of the 5 per cent. obligations of the Providence Blast Furnaces Company is 4·27 per cent., as compared with 4·31 per cent. 12 months since. At present considerable attention is being directed to Belgian industrial securities upon the Brussels Bourse.

Prices have experienced little change in the Belgium coal trade. The general aspect of affairs remains much the same; the comparative mildness of the winter has caused household coal to be a good deal neglected, but there has been a well sustained demand for industrial coal. In the Hainaut industrial coal has been slightly higher. There is a fair demand for coking coal. A contradiction is given to a report which had been circulated that coke had experienced a fall on the German markets. With respect to the German coal trade we may observe that it remains generally in much the same condition; industrial coal is in good demand, although, as in Belgium, the mildness of the winter has rendered household coal something of a drug. Important deliveries have been made towards the Upper Rhine, and Holland has continued a rather important client. In the Sarrebruck district the production will probably have to be increased to enable the current demand to be fully supplied. Prices have not only been supported upon the German coal markets, but have shown, if anything, a slightly upward tendency.

TECHNICAL EDUCATION.—A small preliminary conference, presided over by Mr. Philip Magnus, one of the Royal Commissioners on Technical Instruction, has been arranged to be held at the Cowper-street Schools, on Jan. 30, for the purpose of discussing the questions, suggestions, and statements which, from a workman's point of view, it may be considered desirable to lay before the Commissioners previous to their next visit to the Continental Schools. As a series of questions, 21 in number, are suggested, each of which would fully justify a couple of hours discussion, it cannot be doubted that the Commissioners will be interested and instructed by the conference.

FOREIGN MINES.

CHERAMBADI (WYNAAD DISTRICT) GOLD.—Mr. N. Phillips, a director of the above company, and who proceeded to India in October last to survey the Pandyland Estate, which the company has contracted to purchase, reports by letter—"The estate is very large, considerably over 400 acres. There are certainly very large alluvial deposits—plenty of timber and water. There are now 200 hands at work on estate. Began washing through sluices on Dec. 12." His opinion upon that operation was telegraphed on the 5th inst. in the following words—"Timber and water abundant in depth; speedy excellent result may certainly be expected at nominal cost." Mr. Phillips left India on the 19th inst., and is expected in London on or about Feb. 15.

EUREKA (NEVADA) SILVER.—Report on mines for the week ended Dec. 23: Bald Eagle: The north drift from the east cross-cut 150 is now in more favourable ground for drifting; progress this week 10 ft.; total, 229 ft. from the east cross-cut. The drift from the uprise above the 140 is in favourable ground for drifting; progress this week, 15 ft.; total, 50 ft. from the uprise. Work has been stopped in this drift for the present, and another drift commenced in an easterly direction from the 150. The 300 is now cleared and enlarged to the end, and drifting commenced to-day.—Williamsburg Mine: There has not been any work done in the mine this week, the men being all sick with lead poison.

SIERRA BUTTES GOLD.—Result of the working at the Sierra Buttes and Plumas Eureka Mines for December: Sierra Buttes Mine: Total receipts, $27,393; total working expenses, $20,037.—Plumas Eureka Mine: Total receipts, $43,979; total working expenses, $20,771; outlay on improvements, $591; total, $21,362. The Mammoth Mill was not run during the month.

LA PLATA MINING AND SMELTING.—The following smelting statement for two weeks ending Dec. 25 has been received:—Ore receipts, 2447 tons; ore smelted, 2127 tons. Product: 35,910 ozs. of silver, and 313 tons of lead. Value of consignments, 12,679*l.* The new furnace was started Dec. 13. The net profits for December were 4252*l.* 2s. 4d.

RUBY AND DUNDERBERG CONSOLIDATED.—Report on mines for the week ended Dec. 25: Dunderberg: The winze on the No. 7 ore body below the 700 ft. level is now down 22 ft., on an angle of about 30°, but is now assuming nearly a horizontal position again, in a south-westerly direction; the bottom of the winze is in a large body of low grade ore and iron—a very small portion of it only is of sufficient value to ship. There is no change in the west cross-cut from the 700; progress this week 8 ft. (two men only being at work at this cross-cut); total, 42 ft. from the 700. The upraise from the end of the intermediate drift from No. 2 winze is now up 30 ft.; progress this week 15 ft. The ore seam followed up in this raise is improving slightly; at present it is about 1 ft. wide, of very good ore. A cross-cut has been commenced from the 600, at a point 40 ft. south of No. 2 winze; progress this week 10 ft. The intermediate drift from No. 6 winze has been advanced 18 ft. during the week; total, 130 ft. from the upraise from the 700. The end of this drift does not look so well as the ground already passed through, consequently drifting has been stopped in this direction, and a cross-cut commenced at a point 40 ft. from the end in an easterly direction. Have shipped 4 tons ore, and have 23 men and seven tributers at work.—Bullwhacker: There are two tributers at work at present, and there are about 10 tons of ore at the mine ready for shipment.

— Copy of telegram received from Eureka to-day (Jan. 17): The ore sold for smelting during the week was 52 tons, and realised about $20 per ton. The ore extracted during the week was 33 tons.

PIERREFITTE.—Jan. 14: The manager reports as follows: The ground in the adit level in the south mine has slightly improved; this level will in future be driven by four men. There is no material change in the value of the lode in the stope. The men that have been engaged stoping have been removed to the No. 2 level in the north mine, and the stoping is, therefore, suspended for the present. No. 7 stope (formerly a part of No. 8) yields 4 tons of lead ore and 3 tons of blende per fathom. The ore is being cleared from the No. 8 stope with the view of stoping the lode to the west of the No. 3 winze. There are four men engaged in stoping the No. 7 stope, and it is intended to place four men in the No. 8 when it has been cleared of ore. The part of the lode being carried in the No. 2 winze below the No. 2 level is unproductive at present. The pare that were in this winze are removed to the No. 2 level. The cross-cut south in the No. 2 level has been communicated to the bottom of the No. 1 winze below the No. 1 level. This admits of operations being commenced in this level and above it immediately; and the following operations will be started therein forthwith:—No. 1 stope below the No. 1 level, east of No. 1 winze, by four men; No. 2 stope to the west of No. 1 winze below the said level, by four men; No. 1 stope in the back and bottom of the No. 2 level, by four men; No. 2 stope over the No. 2 level, by four men; No. 2 stope below the No. 2 level, by four men; No. 2 end in the No. 2 level, by four men to drive east; No. 3 end to drive west in the said level, by four men; No. 4 end to drive east, by four men in said level; No. 5 end to drive west in said level, by four men. It will easily be understood from the above there are two parallel ends both east and west in the No. 2 level. The east of the lode being carried with the end in the No. 3 level is at present unproductive. There are two men engaged in this level. Good progress is being made in the cutting the tramway route from the mouth of the No. 3 level towards the large cable; two men are engaged on this, but will be removed to the No. 2 level, and the completion of the route will stand in abeyance a little. During the week 103 tons of ore has been sent down over the small cable, and about 40 broken from the stopes, &c. We sample to day a 50 ton parcel of lead ore. A reduction in the number of labourers and masons has taken place in consequence of the construction works having drawn near a close. The large crusher-house, as well as smiths' carpenters' shops, store house, &c., have been completed, roofed, and the forges in the smiths' shop built. One of the pairs of the No. 1 crushers has the riddle gear fixed, leaving no further machinery to be added to set to work, save just putting on the belting to drive the riddle. The fixing the riddle, &c., to the turn crusher is in a forward state. The caulking the No. 1 water-wheel, together with a portion of the launders connected thereto, will be completed in a few days. This is found needful. The new tramways connecting the stone breakers and crushers are in a forward state towards completion, so that in a week or 10 days, with fine weather and good speed, we hope to have the large stone-breaker, No. 1 pair of crushers, and the new tramways connecting the machinery, ready to work. You will see from the above arrangement of operations underground that provision is made for a considerably increased output of ores from the mine. Arrangements are being made which will enable us to greatly increase the quantity of ore for market, and I would here remark we shall be able to do this with or without an increase of water. The weather is dry, with more or less hard frost at night, which keeps the quantity of water small.

GOLD HILL.—The manager's reports to Dec. 14 have been forwarded to the shareholders. Capt. Treloar writes that on Dec. 8 they sent 205 sacks (5 tons) of tailings to the Salisbury Railway station, with a small keg of lode stone, to be forwarded to New York for shipment to Liverpool. I sent, he adds, two letters of particulars addressed to the secretary—they go open to New York that the name and address of the vesel may be inserted—when one of them will be posted at New York, the other given to the captain of the vessel, that he may post it immediately he arrives at Liverpool. The carpentery work of the stamps shed is progressing satisfactorily, although the weather has been unfavourable for outdoor work. The Reservoir veins presents very little change since last reported. The south vein is still small, but pans well. As depth is gained these two veins are gradually coming together. We are cleaning up an old sink north of Miller's shaft to examine a vein reported to have been yielding good ores at the time it was abandoned many yiers since. The sink was said to be about 9 ft. deep. We have cleaned up 15 ft., and the vein, what can be seen of it, has a promising appearance. I mentioned in my last that I had surveyed the section between Manney's shaft and the rise from the back of the 163 ft. level. The distance from the bottom of the shaft to the top of the rise is 8 fms., and in order to open a communication as quickly as possible, we purpose setting this work on contract to six men, so as to work night and day in three shifts. As our heavy surface works are gradually coming to a close for the present the most able hands are being sent to work in the mine. On Jan. 12 a telegram was received from Capt. Treloar announcing that the tailings were shipped.

SOUTH-EAST WYNAAD ESTATES AND GOLD.—Mr. W. H. Thompson (the secretary) writes:—The progress in the development of our mine has gone on uninterruptedly during the months of October, November, and December. From Mr. Cooper's latest reports, dated Dec. 10 and 17, we learn as follows:—The North Drift Tea Reef is in from No. 1 tunnel 161 ft., still in old workings. Came across a rich pillar of pyrites left by the ancients, who must have had a rich lode here. —South Drift Tea Reef: We have commenced to drive this towards the shaft—lode 2 ft. wide; 10 ft. driven during the week. North drift No. 5 is 115 ft. from cross-cut. A communication has been made with a tunnel which was driven to meet this. It has given good ventilation to the mine. We shall lay down a tramroad from the mouth of this tunnel into the south drift, but a small stope is first necessary to give it a run. As soon as the tramroad is finished I shall start a winze in the lode to communicate with No. 6. This will prove the lode, ventilate No. 6 workings, and open out available ground for stoping. South drift No. 5 driven 2 ft.; from tunnel 71 ft. The lode has produced more pyrites than ever this week, and is looking very well at present. Drift from adit 3 ft.; lode of good appearance.—No. 6 Tunnel: Very good progress has been made in this —21 ft. during the week. Now in 121 ft. from mouth. Mr. Cooper telegraphed the first through message from the recently opened office at Devallah that the newly arrived Governor of Madras visited our properties on Friday last, and inspected the workings, more particularly No. 5 tunnel, Elizabeth Reef, and in a speech at the Pundalur Institute afterwards stated that his spirits were greatly raised by what he had seen. Mr. Cooper also wired that the lode was looking better than ever, and that he was starting for Beypore to inspect the recent purchase of a 20-stamp battery, engine, amalgamators, complete in the hands of our agents there. Mr. Cooper will leave India in the month of March for a short visit to London to confer with the directors, and give the shareholders in public meeting a full statement of affairs and prospects of the mine, with which, despite all rumours to the contrary, the board are perfectly satisfied.—P.S. A telegram has just been received from our agents at Beypore stating that Mr. Coope has passed the 20-stamp battery, which will be forwarded ro the estate directly.r

ISABELLE.—Samuel Argall (foreman), Dec. 16: I herewith submit my report for work done and progress made at the mines for the five weeks ending this Dec. 16. My first two weeks were spent in timbering the mine, building blacksmith's shops, &c. Have shipped to mill about 75 tons of ore, and have about 75 tons now on hand. If the mine continues to look as well as at present we shall have no trouble to keep the mill running through the winter, and that without any more prospecting for ore, as the ore body is looking better, and growing larger every day. I have had six men employed in this mine for the whole time, and for the past three weeks have had six employed outside assorting rock, &c.

— J. O. Stewart, Dec. 19: Mill Report: Up to the present time we have a few pounds of gold and silver amalgam, and quite a showing of cement copper. A portion of the latter as fast as it accumulates we expect during the week to commence melting into plates, and so continue to do until a sufficient number are obtained to place in the silver tubs for the precipitation of the silver—say 4000 to 5000 pounds of copper plates. The ore in the mill and coming from the mine is a good grade of ore, and having examined the mine I find an immense body of the same in sight, but as the ore contains but little gangue of quartz or clay (being about 80 per cent. of mineral) it is exceedingly heavy; and, therefore, it must not be expected that your batteries (the Exchequer) will crush more than 8 or 10 tons in 24 hours.

— Mr. Lewis Chalmers writes Dec. 28 as follows: Mr. Stewart's weekly report herewith, from which you will see that every particle of metal is chloridised, and a little more is extracted. We must calcine in rough furnaces outside, which we are now constructing. The cost will not be much, and but only a little wood is required, the sulphur supplying the fuel. I am happy also to be able to send you a good report of the mine from the foreman.

— Samuel Argall (foreman): Report for week ending Dec. 26: I have shipped 60 tons of ore to the mill, and have about 90 tons more on hand. I have had 13 white men working through the week, and have also had five Indians assorting rock on the outside. The mine is looking well, and there will be no trouble to get all the ore that the mill can put through. I have got a pump up on the shaft, and shall commence pumping water in a few days. By pumping the water out it will give us a great deal more ore in sight, which we shall be able to get at as soon as the water is out. The mine is looking much better than when Jones was up here. We have struck a nice body of black ore on the west end of the chamber, and by the way it looks I think that it will be bigger than ever it was.

— Mr. J. O. Stewart, Dec. 28: Mill Report: To-day the furnace is doing better, showing 73 per cent. clorination, the tailings from which will be of a corresponding percentage both as regards gold, silver, and copper extracted. The battery samples of the ore average from $50 to $60 in gold and silver, and about 5 per cent. of copper, a total commercial value of about $70 per ton of 2000 lbs. For the foregoing reasons work on the grade of the calcining kilns, gettiug out rock, &c., was commenced on Dec. 22, but owing to the holidays and the absence of most of the workmen but little progress has been made; however, it is expected that in a few days a full force will be at work, and we hope during the coming month to have them completed, and before Feb. 1 to have the calcined ore coming into the mill. As soon as this is the case the 10 stamps, the furnace, the two agitators, &c., will all have an equal capacity of 10 tons of ore per diem, with a yield we trust of 85 to 90 per cent. of the contents of the ore.

Copy of letter from the California State Mining Bureau:—"Office of State Mineralogist, San Francisco, Dec. 22: The specimen of Isabelle ore mentioned in your letter dated Dec. 9 came to hand to-day. It is a very fine specimen, and will be a valuable addition to the State Museum. I thank you for the fine specimen of Isabelle enargite, and hope to hear from you often.—H. G. HANKS, State Mineralogist."

THE ALMADA AND TIRITO CONSOLIDATED SILVER MINING COMPANY (LIMITED).

I.—EXPLORATORY WORK—MINA GRANDE.—GUIJAS CROSS-CUT.—J. H. Clemes, Oct. 29: The heading was advanced 7 ft.: total 130 feet. The breast shows porphry and felspar, with a little quartz. We have not yet got out of the hard belt.

Nov. 19: The heading was advanced 6 ft.; total 140 feet. The rock traversed was a hard compact porphyritic granite.

Dec. 3: The heading was advanced 4 ft. 2 in.; making a total of 144 ft. There is a great deal more quartz mixed throughout the country rock than has been the case hitherto.

THE 30 CROSS-CUT EAST.—Oct. 29: 3 ft. 8 in. were driven; making 19 ft. in all from western wall. The end contains some quartz and spots of black ore. We are anxious to finish at this place, and to put the men on western branch above tunnel; but we have done so much at this place that we think we ought to traverse the main lode before stopping.

Nov. 19: THE CROSS-CUT EAST was driven 1 ft. 2·10 in., and stopped.

DRIFT 16 FATHOMS ABOVE TUNNEL WEST BRANCH was run 7 1·10 feet. A tracing and description are enclosed. (These can be seen at 47, Finsbury Circus, E.C.)

Dec. 3: The breast was driven 7 feet. There was an improvement in this drift; some small stones of good ore, one or two being pitanque, were found. The general appearance of the breast is much better than when last reported.

II.—DEVELOPMENT WORK—MINA GRANDE.—Oct. 29: THE EAST CROSS-CUT FROM TOP OF RISE was advanced 9 ft. 4 in.; being 25 ft. from west wall. The breast of drift shows veinlets of black ore and some felspar. We are inclined to think that parts of the horse we have driven through are orey enough to pay to stope away.

Nov. 19: This was driven 6 1·10 feet. There are strong probabilities that this cross-cut has latterly traversed remunerative ground; results of samples to follow. Explorations to find out the dimensions of this ore block are being started.

Dec. 3: CROSS-CUT EAST FROM LATE RISE: After holing through at this place we discovered a pillar of ore, east of the communication. Part of the ground traversed before holing through will furnish payable stopes. A sample of 15 tons of stuff from this place, including what was blasted out on communicating, gave 66 per cent. of 40 ozs. milling ore, and 34 per cent. of deads. This strike is in view of the shortness of our reserves of importance. An encouraging feature is the occurrence of ore in the horse itself.

NO. 2 OR SOUTH STOPE, ON WEST BRANCH.—Oct. 29: We drifted south from end of stope 4 ft. 3 in., at which point the ore ended.

Nov. 19: A drift at stope No. 2 has been continued south for 3 2·10 ft. in orey ground. A drift was made north for 4·7 ft. from "main salon" on a very good leader of black ore.

16 FATHOMS ABOVE TUNNEL LEVEL.—Dec. 3: A contract is set on a drift running from 16A, to come over the new rise; we are obliged to do this to get attle for filling, and to secure good ventilation.

RISE NO. 51. Dec. 3: This has been started to go up in the pillar near to where the cross-cut communicated. The breast is not looking quite so well as last week —still about one-half of the breast is ore; last week two-thirds of the breast was milling ore; 3 ft. was risen in the week.

PROVIDENCIA—Oct. 29: RISE IN PROVIDENCIA, on the same pillar, was put up 3 ft. 5 in., to prepare for another 6 ft. cut at the stope.

Nov. 19: A rise in Providencia for stoping facilities, 3 feet, was put up.

FIRST LODE.—Nov. 19: We rose 6·7 feet on a small stringer in first lode.

III.—ORE EXTRACTION.—Oct. 29: 30·3 ft. lineal at the main ore salon, the back of which is looking as well as ever; 13·1 ft. at the 17 workings; 8·5 ft. at pillar in Providencia; 7 ft. at south or No. 2 stope, west branch; 17·4 ft. on old pillar 10 fms. above tunnel (Mina Grande).

Nov. 19: 30 ft. lineal at main salon, Mina Grande; 19·7 ft. on old pillar 10 fms. above tunnel; 22·6 ft. in first lode; 10·9 ft. Providencia pillar.

Dec. 3: 27·2 ft. lineal at main salon; 7·5 ft. lineal Providencia pillar; 8·8 ft. lineal, first lode. The last 6 ft. cut in first lode has left a very poor back overhead. There is a narrow stringer in the north of the stope on which we thought of rising; the veinlet is too narrow to pay. The drift south from No. 2 stope was further extended 2·2 ft.; the breast is valued at 1 ft. black ore.

DUMP MINA GRANDE.—Oct. 29: 37 tons smalls were received from the tributers in $61·25.

SMALLS FROM MINA GRANDE DUMP.—Nov. 19: 7 tons, costing $11·25. The better class tierras are very scarce. The system of selection we are pursuing leaves the main bulk very poor.

DEFECTIVE ORIGINAL.